MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 3, 2022/2023

BAE2014 – SEMINAR IN ANALYTICAL ECONOMICS

(All Sections/Groups)

6 OCTOBER 2023
9.00 am-11.00 am
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This Question paper consists of **FIVE** pages with **FOUR** questions only.
2. Attempt **ALL FOUR** questions. The distribution of the marks for each question is given.
3. Please write all your answer in the Answer Booklet provided.

Answer all questions in the answer booklet provided.

Question One (25 marks)

Passage 1

ABSTRACT

Most emerging economies and the South American Countries are no exception to the negative consequences of trade-off between economic growth and environmental sustainability decisions. This study draws strength from the United Nations Sustainable Development Goals (UN-SDGs-7, 11, 12, and 13). Therefore, this study examines the environmental nexus between economic growth, globalization, renewable, and non-renewable energy, in South America from 1995 to 2020. We deployed the pooled mean group (PMG), mean group (MG), and dynamic fixed effects (DFE). Cross-sectional dependence, panel unit root, and co-integration tests were performed. Finally, we used the Dumitrescu and Hurlin test of causality to determine the long-run association between variables. The finding indicates that while environmental pollution increases with increasing economic growth, it decreases with increasing renewable energy both in the short and long term. Whereas economic globalization positively affects environmental pollution in the long term, social globalization and the moderation effect between political globalization and renewable energy improves environmental quality in the long run. Finally, a bidirectional causality was found between economic growth and environmental pollution, with a unidirectional causality running from economic, political, and social globalization, renewable, and non-renewable energy to environmental pollution. Given these findings, we discussed potential policy measures.

Globalization refers to the mutual or multidimensional relationships between countries that basically foster trade and development between countries. The link between globalization and environmental pollution can be discussed under three main effects, namely the income, scale, and composition-effects (Salahuddin et al. 2019). Whereas the income effect of globalization promotes environmental pollution via international trade and investments, the scale effect promotes pollution through the transfer of factors of production and cross-border market interactions. This increases competition and encourages diversification with the resultant effect being increased production (Salahuddin et al. 2019; Gyamfi et al 2021a; Adedoyin et al 2021). The composite effect is when emissions increase as a result of a shift towards carbon-intensive production and consumption due to the change in the structure of an economy (Salahuddin 2019).

In this study, we rely on the theory behind the pollution-halo and pollution-haven hypotheses to explain the interactions between our variables of interest. The pollution-haven hypothesis points to the fact that weak environmental policies and pollution regulations attract foreign industries that are not environmentally conscious, thereby increasing pollution levels and causing environmental destructions in developing countries. The proponents argue that this occurs through the mechanism of globalization.

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The proponents argue that, although, economic growth may be boosted in the host country, it may also contribute significantly to environmental pollution (Ahmed et al. 2021). On the other hand, supporters of the pollution-halo hypothesis argue that countries with strong and robust environmental policies and regulations through the globalization mechanism only attract environmentally conscious industries that are ready and willing to comply with such regulations. This results in the reduction in emissions since the failure on the part of industries to adhere to the host country's environmental regulations may attract hefty fines and sanctions.

Several past studies have supported the pollution halo-hypothesis using either country level or regional level data with a mix of econometric approaches. For example, Yuping et al. (2021) applied a dataset spanning 1970 to 2018 in Argentina and showed that globalization improves environmental quality. Sharif et al. (2020a) observed that during higher emitting periods, increased globalization resulted in an additional increase in carbon discharge in the atmosphere, affecting environmental quality in Malaysia. Kihombo et al. (2022) found that financial globalization ameliorates environmental pollution and a one-way causality between financial globalization and pollution in the West Asian and Middle East economies. Furthermore, Usman et al. (2022) found that globalization reduces pollution in some selected resource-rich countries. In the case of South Asian countries, Mehmood et al. (2021a) found that globalization helps to mitigate environmental pollution. Jahanger (2022) found that political globalization significantly promotes environmental quality while social and economic globalization destroys the environment in developing countries. Ahmed et al. (2021) discovered that while a positive shock to overall globalization and economic globalization aggravates environmental pollution, a negative shock ameliorates environmental pollution in the USA. Some studies that support the pollution-haven hypothesis include Murshed et al. (2022) who confirmed that economic globalization exacerbates environmental pollution. They also found a single-directional causal nexus moving from economic globalization to pollution in Argentina. Jun et al. (2021) observed an increasing nexus between globalization and CO2 emissions in South Asian countries as well as the feedback effect. Destek (2020) found that with the exception of political globalization, economic and social globalization exacerbates environmental pollution in Central and Eastern European Countries. Farooq et al. (2022) observed that economic globalization reduces environmental quality but political globalization improves it globally.

Similarly, several studies have delved into the interaction between the economic growth and environmental pollution nexus albeit providing conflicting evidence on both individual country and regional levels (Maduka et al. 2022; Zanjani et al. 2022; Addai et al. 2022; Salari et al. 2021; Alharthi et al. 2021; Salahuddin et al. 2019; Dogan and Karay 2019; Mehmood et al. 2021a, b). Szymczyk et al. (2021) observed that economic growth promotes CO2 emissions. Baydoun and Aga (2021) observed a positive response of CO2 emissions that emanate from economic growth in Gulf Cooperation Council (GCC) countries. Yang et al. (2021) confirmed that economic growth instigates environmental pollution. Martins et al. (2021) reported a positive impact of economic growth on environmental pollution.

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Ge et al. (2022) noted that economic growth exacerbates environmental pollution in China.

On the contrary, Ozturk et al. (2021) found that economic growth has a negative effect on environmental pollution in Saudi Arabia. This implies that GDP promotes environmental quality in Saudi Arabia. In the case of Pakistan, Ali et al. (2021) found out that economic growth promotes environmental quality. In China, Aslam et al. (2021) observed that economic growth decreases environmental pollution in the long term. Suki et al. (2020) revealed that economic growth increases the level of environmental degradation in Malaysia in the long run.

Source: Abdul R. The title of this article is not provided due to the nature of the exam question. Environmental science and pollution research 28 September 2022,30: 15505-155220.

Based on **Passage 1**, answer the following questions.

(a) Find a suitable title for **Passage 1**. The title should convey the main findings of the research. (5 marks)

(b) Identify any **Four** variables that were used in this study. (5 marks)

(c) Based on the Literature Review section, determine the model specification of this paper. (7 marks)

(d) Based on your answer in (c), evaluate the preliminary data analysis that could be employed to conduct the study. (8 marks)

Question Two (25 marks)

(a) Analyse the application of Multivariate techniques in research? (10 marks)

(b) Compare how a data panel differ from either a cross section or a time series data (15 marks)

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Question Three (25 marks)

ABSTRACT

Foreign direct investment (FDI) can boost economic growth and provide job opportunities. FDI inflows in ASEAN+3 countries have dropped markedly, which may affect economic development in the region. Many previous studies have investigated a multitude of factors that can influence FDI, such as market size, inflation, trade openness, corruption, and inflation. Previous studies did not, however, consider environmental degradation as a potential factor. Besides corruption and inflation, imposing stringent environmental regulations, such as carbon pricing and taxes to reduce environmental degradation, might deter foreign investors from the country. This is due to heightened costs for foreign investors, which may cause FDI inflows to drop. To shed some light on the reality of this situation, this study examines whether environmental degradation can significantly affect foreign direct investment in the region. This study includes environmental degradation as a potential factor and employs the panel ARDL approach to analyse data from 1995 to 2019. Results show that environmental degradation, infrastructure, and corruption can affect the inflow of FDI in the long run. In the short run, inflation can affect FDI. The findings of this study can be utilized by policymakers in formulating the right policies to attract more investors. An increase in infrastructure facilities should be considered to attract more foreign investment. It is also vital for governments to reduce corruption and inflation to attract more FDI inflows. Environmental incentives should also be introduced to ensure that attempts to reduce environmental degradation do not affect FDI inflows.

Keywords: trade openness; infrastructure; corruption; environmental degradation; FDI; panel ARDL

Source: Int. J. Environ. Res. Public Health 2023, 20, 1720. https://doi.org/10.3390/ijerph20031720.

Based on **Passage 1**, answer the following questions.

(a) Find a suitable title for **Passage 1**. The title should convey the main findings of the research. (5 marks)

(b) Identify the problem statement ,dependent and independent variables to be used in this study.

(10 marks)

(c) Based on your suggestion in (b) analyse the econometric methods that could be employed to conduct this study. (10 marks)

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Question Four (25 marks)

(a) Analyse the structure of Economic data available for economic analysis? (15 marks)

(b) Evaluate the methodology of Econometrics? (10 marks)

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